Portfolio Mapping Guide

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NET ZERO CITIES
EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

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1. Define Scope and Purpose
2. Unpack the Action Plan
3. Co-Design the Portfolio
4. Explore and Iterate the Portfolio

Context and Introduction to the Guide

Implementing climate action is not just about setting ambitious goals — it's about aligning efforts across departments, stakeholders, and resources. Many cities face the challenge of coordinating multiple initiatives that often run in parallel without clear connections, leading to fragmented progress and missed opportunities. Effective climate action requires a way to see and coordinate the entire network, without relying on one central actor to control every decision.

Portfolio Mapping is a practical tool designed to tackle this challenge. It transforms complex climate plans into a visual map that shows how **actions**, **actors**, and **assets** are interconnected as part of a larger network. This shared view helps cities identify synergies, uncover gaps, and engage stakeholders in co-creating the portfolio. The visual serves as a dialogue tool, fostering collaboration and facilitating coordinated action. Rather than a static list of tasks, Portfolio Mapping creates a living, adaptable framework that evolves with new insights, partnerships, and changing conditions.

This playbook offers a **step-by-step guide** for cities to move from **Climate City Contracts** and **Action Plans** to implementation using systemic portfolio thinking. Designed as a low-barrier entry point for Mission Cities within **NetZeroCities**, it helps cities committed to achieving climate neutrality by 2030. Traditional action plans can be limiting, often seen as linear to-do lists. Portfolio Mapping enables cities to unpack actions and make connections between actions, actors, and assets visible and actionable, ensuring all stakeholders work towards the same goal.

Portfolio Mapping

Having your entire Action Plan and portfolio in a document is like trying to complete a puzzle while keeping the pieces in the box and picking them up one by one.

Portfolio mapping is a way to lay out all the pieces on the table and start sorting them to see how they fit together.
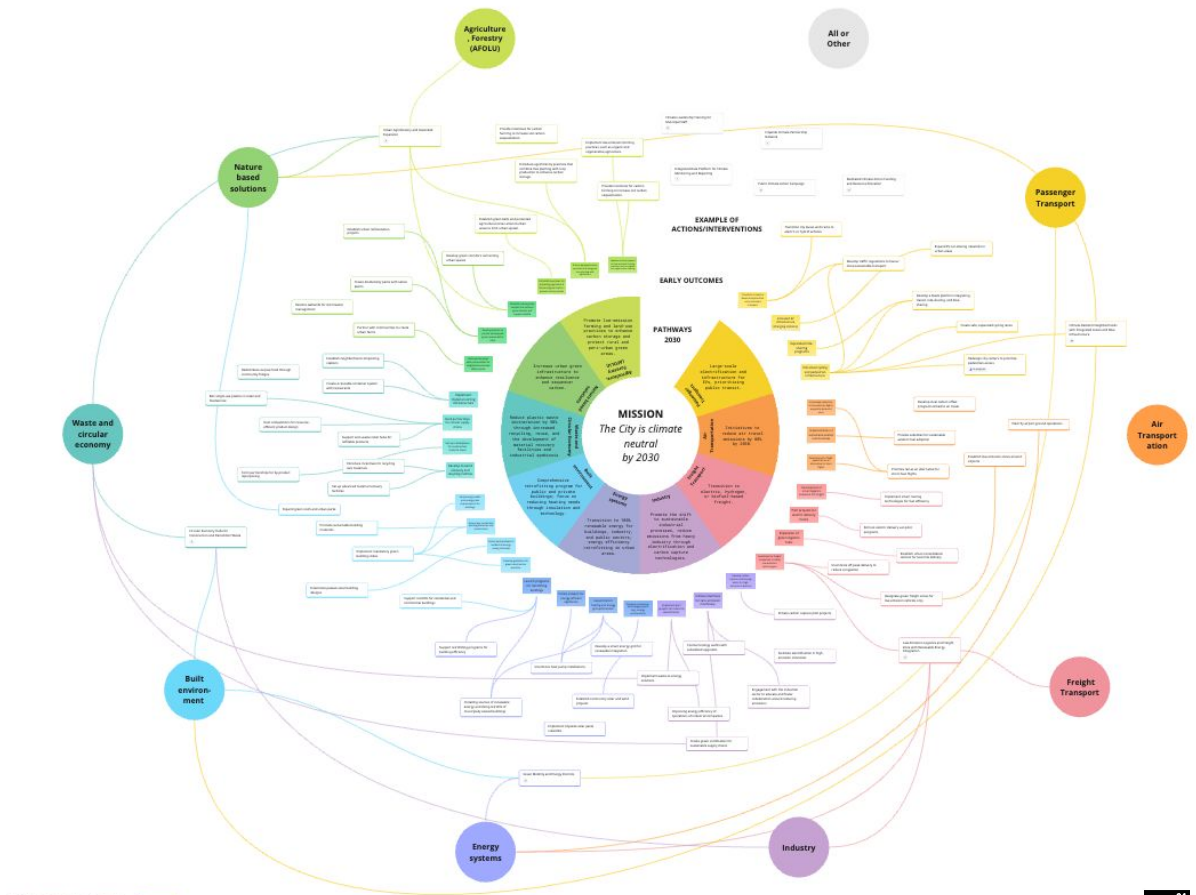
Why use it

The Portfolio Mapping process helps cities coordinate a vast array of actions, stakeholders, and resources to accelerate their transition to climate neutrality. Possible benefits include:

Makes complexity and coordination manageable

Portfolio mapping helps coordination of actions, actors and resources by visualising the interconnections, synergies and dependencies, enabling them to achieve multiple goals with fewer resources.
It may helps cities identify gaps and opportunities, revealing underdeveloped areas that a to-do list might miss.

Builds shared understanding and ownership

Involving diverse stakeholders in the mapping process foster mutual learning and a sense of shared responsibility for the transition. The portfolio is a living document that can be adapted to new insights and changing conditions, keeping the transition dynamic and helping stakeholders stay engaged and committed to long-term climate goals.

Enhances collaboration and stakeholder engagement

The visual serves as a dialogue tool that brings together city departments and involved stakeholders, fostering stronger partnerships and coordinated efforts toward climate goals.
The process also breaks silos and strengthens collaboration, aligning efforts, highlighting co-investment and joint action opportunities.

When to use it

Portfolio mapping is a tool to enable the **Climate City Contract** (CCC) to be a 'living' document. It is primarily designed to be used after a city has co-created a first version of their portfolio. When the focus is on implementation - the phase "Take Action" of the [**Climate Transition Map**](#) (CTM) as well as the continuous work to "Activate an inclusive ecosystem for change."

Portfolio mapping is primarily useful:
- After submitting a Climate City Contract, to reconnect with the Action Plan.
- When onboarding and engaging colleagues internally in the municipality to work towards climate neutrality.
- When aligning multiple stakeholders, revising strategies or iterating the Action plan.
- At moments of political or organisational change, to clarify priorities.
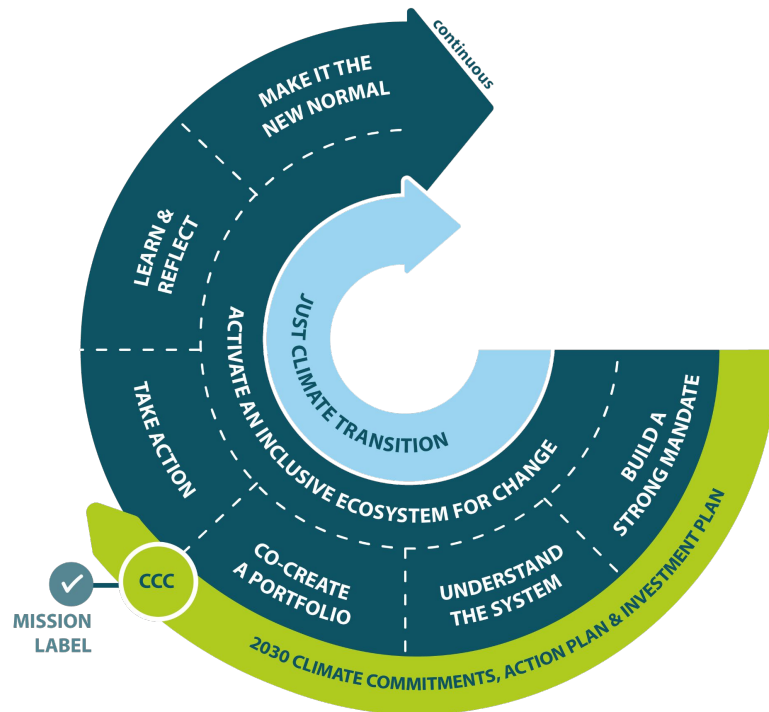
By Whom

The mapping is typically carried out by **Transition Teams** and city practitioners within municipalities, with participation from:
- Multiple City Departments
- Project Coordinator
- Core Transition Team
- Participants involved with writing the Climate City Contract
- Private Sector Partners
- Academia and Universities
- Civic groups
- Facilitators or portfolio designers may support the process.

This process requires a **facilitator** experienced in using **Miro**. However, individuals with facilitation or service design expertise can support the process and choose alternative digital tools for visualisation. This could be someone in the municipality or a consultant.
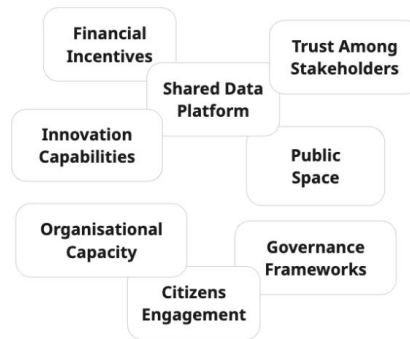
Elements of a Portfolio

A portfolio is a dynamic and interconnected system that brings together **current actions**, potential **future actions**, the **actors** who will implement them as well as those who are most affected, and the **assets** that will enable success. Portfolio mapping helps cities move beyond isolated tasks by showing how all elements work together.
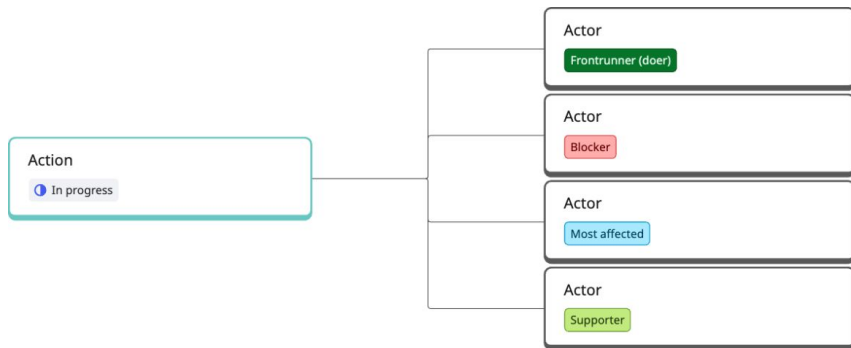
Actions: The specific interventions we implement in the system, including experiments, programs, and initiatives designed to create change

Actors: Key stakeholders, partners, and alliances whose participation, expertise, and buy-in are crucial for successful implementation

Assets: Both enabling and constraining conditions and resources that shape what's possible

Elements of a Portfolio

Actions

Definition: Actions are the specific steps taken to move the system toward the shared goal of climate neutrality. They are the tangible interventions that translate ambitious targets into real-world outcomes.

How it relates to other elements:
Actors: Actions are carried out by actors based on their unique roles.
Assets: Actions depend on available assets (e.g., funding, infrastructure) to succeed.

Examples:
- Developing a **digital platform** for emissions monitoring.
- Launching a **public engagement campaign** to encourage community participation.
- Creating a **green funding mechanism** to support innovative private sector projects.

Actors

Definition: Actors are the individuals, groups, or organisations involved in implementing actions within the system.

How it relates to other elements:
Actions: The actions taken depend on what actors perceive as achievable based on their capabilities.
Assets: Different actors interact with assets in unique ways, which can enable or constrain their actions.

Examples:
- **Municipal governments** focused on meeting climate neutrality targets but hindered by resource limitations.
- **Green Tech Companies** driven by profitability and innovation but often hesitant to invest in long-term community-driven projects.

Assets

Definition: Assets are the enabling conditions and resources that shape how the system works. They can include things like funding, data platforms, infrastructure, or even trust among stakeholders.

How it relates to other elements:
Actions: Actions depend on assets for success and may also create or improve assets for future impact.
Actors: Actors interact with assets in different ways, and understanding these dynamics is essential for balancing the system.

Examples:
- **Shared Data Platforms** that help cities make evidence-based decisions.
- **Financial Incentives** that encourage private sector investment in green technologies.
- **Trust Among Stakeholders**, which fosters collaboration but requires sustained effort to maintain.

The Four Steps to Get Started

Now that you understand the purpose, benefits, and key components of portfolio mapping, let's explore how to get started.

1. Define Scope and Purpose
2. Unpack the Action Plan
3. Co-Design the Portfolio
4. Explore and Iterate the Portfolio

Practicalities

Time:
- Initial scoping: 2-4 hours.
- Mapping transfer: 1–2 days.
- Workshop series: 20–60 hours over 1–3 months.

Tools:
Miro or similar visual collaboration software.
Existing Action Plans, CCCs, and stakeholder lists.
Visuals and templates provided in this playbook.

Example of process, roles, time

Activity	Define scope and purpose	Unpack the Action Plan	Co-design the Portfolio (test)	Co-design the Portfolio	Explore, iterate and develop
Description	Align expectations Set purpose Plan process	Transfer (copy/paste) the Pathways, outcomes and actions to Miro	Try out one emission domain. Plan for a workshop series.	Build the map in a workshop series and onboard a wider team	Adapt the mapping for different target groups and needs. Create workshop material and use as dialogue tool.
Roles	Portfolio designer + City Process leader (Transition team)	Portfolio designer	Portfolio designer City core team (2-3 people)	Portfolio designer City core team 10-50 workshop participants	Transition Team
Estimated time	2-4 hours	1 day	1-2 days	20-60 hours over 1-3 months	...
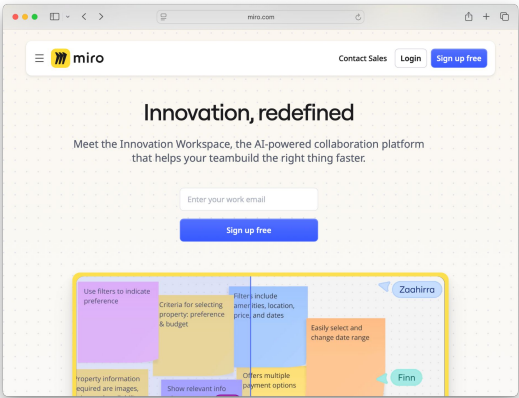
1. Define Scope and Purpose

Create a shared understanding between the facilitator and the city team of the short and long term needs and how the portfolio mapping can be useful. I.e:

- When you need to reconnect to the Action Plan after submitting a Climate City Contract.
- When there's a need to onboard and engage colleagues internally in the municipality.
- When aligning multiple stakeholders or revising strategies.

For further inspiration see the city case from [Lund](#).

Make sure to align expectations, goals and scope with the core team. Clarify whether the mapping will cover the whole Action Plan, a specific theme (e.g. mobility), or a cluster of related projects. And create a high-level timeline for the process.

Output: A shared understanding of purpose and boundaries.

2. Unpack the Action Plan

Transfer pathways, outcomes, and actions into a mapping tool (e.g. Miro). Place all the pieces on the table to make interconnections visible. Start clustering actions by domain, lever, or actor responsibility.

How to unpack the Action Plan
1. Collect content and select a color code for each domain
2. Copy from spreadsheet to Miro
3. Sort, color code & switch type
4. Populate each Action Card
5. Lay the puzzle

Output: A draft visual map of all climate actions.
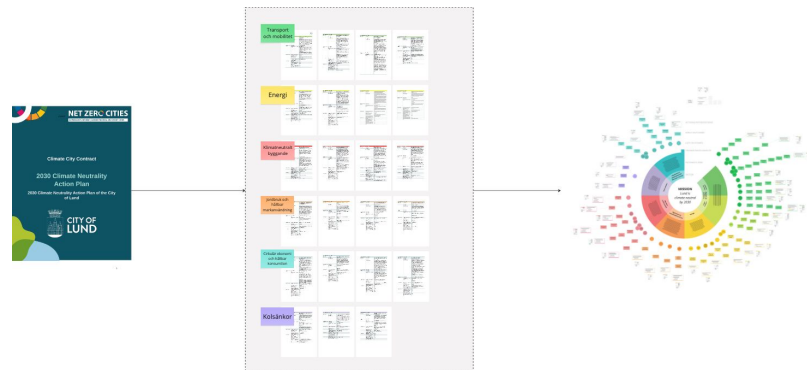
The Four Steps to Get Started
Unpack the Action Plan

Collect content and color code

Collect the list of actions and content from the Action Plan in a spreadsheet.

Select a color for each domain or pathway.

The Four Steps to Get Started
Unpack the Action Plan

Copy from spreadsheet to Miro

Select cells with actions, description, early and late outcomes in spreadsheet to copy. Paste as separate sticky notes. Every cell will create its own sticky.
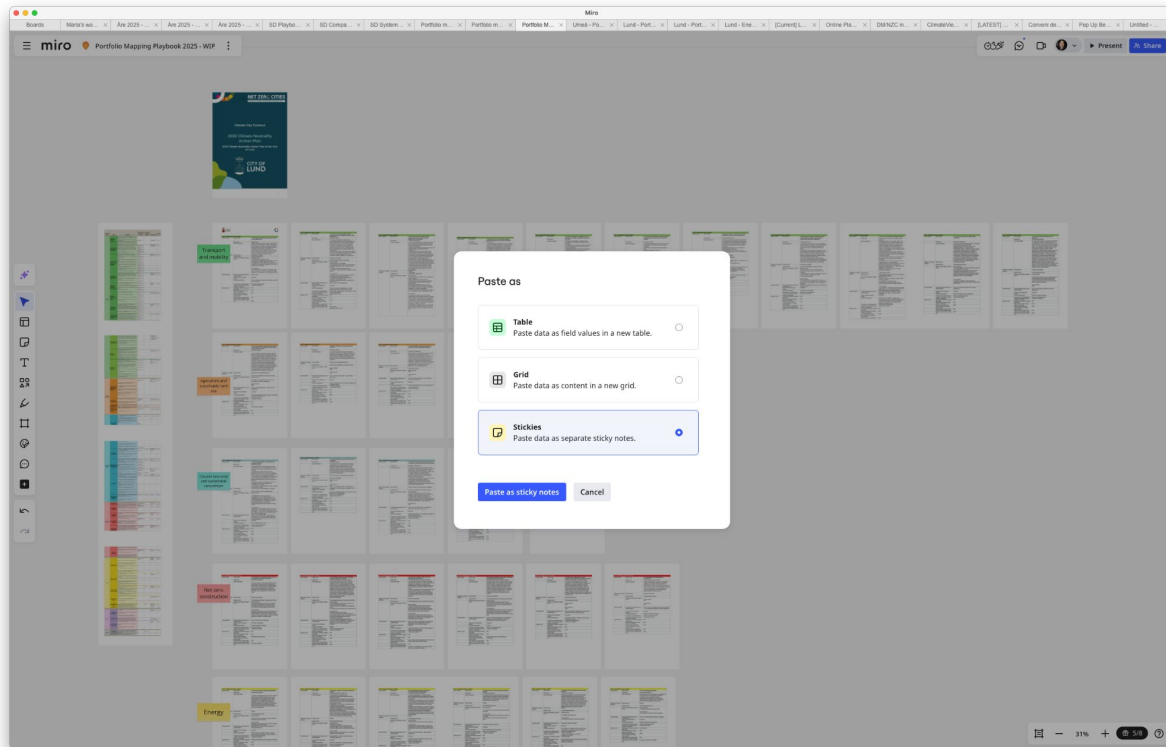
The Four Steps to Get Started
Unpack the Action Plan

Sort, color code & switch type

All cells are pasted as yellow sticky notes. Sort all stickies as a list and change color per pathway/domain.

- Select multiple actions sticky notes and Switch type to Cards.
- Turn Early outcome to rectangular stickies.
- Turn Late outcomes into circles.
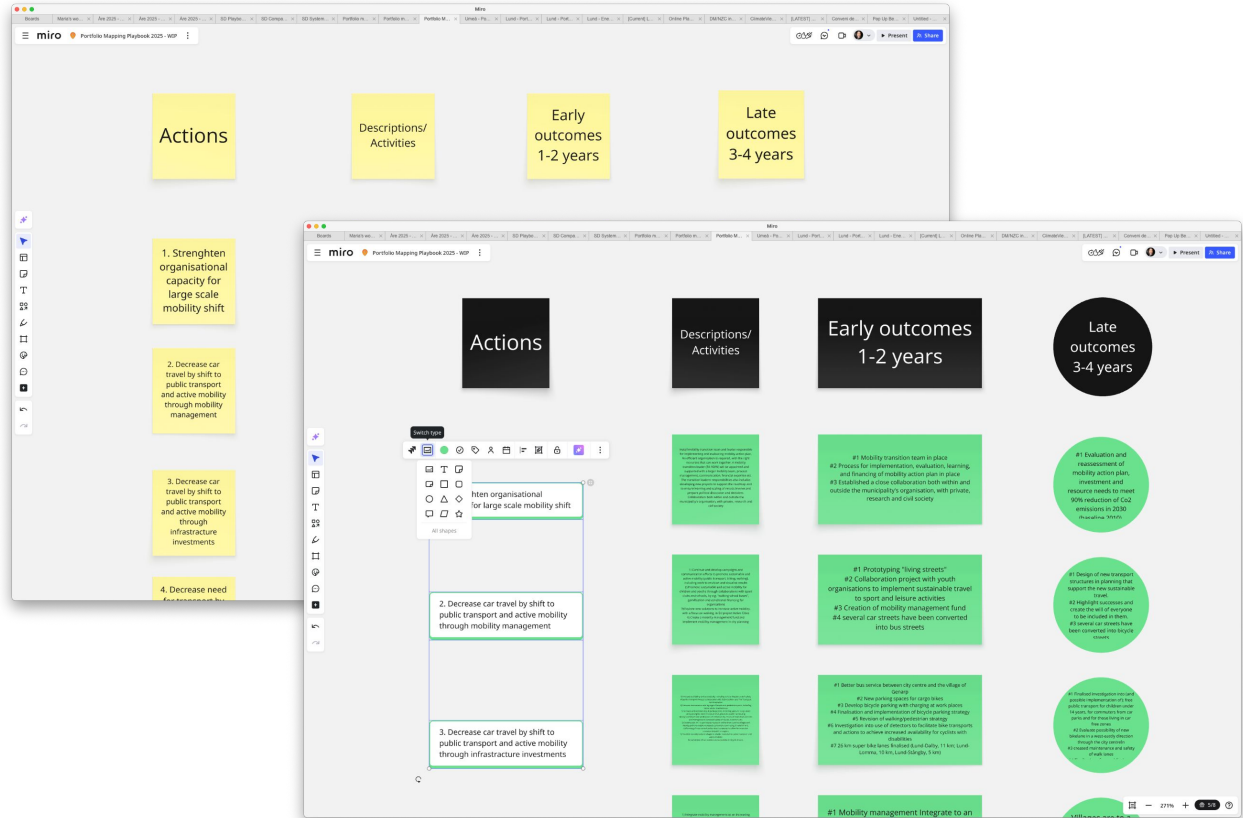
Populate each Action Card

Open an Action Card (symbol in upper right corner).

1. Strenghten organisational capacity for large scale mobility shift

Add additional content such as description, activities, related outcomes, responsible.
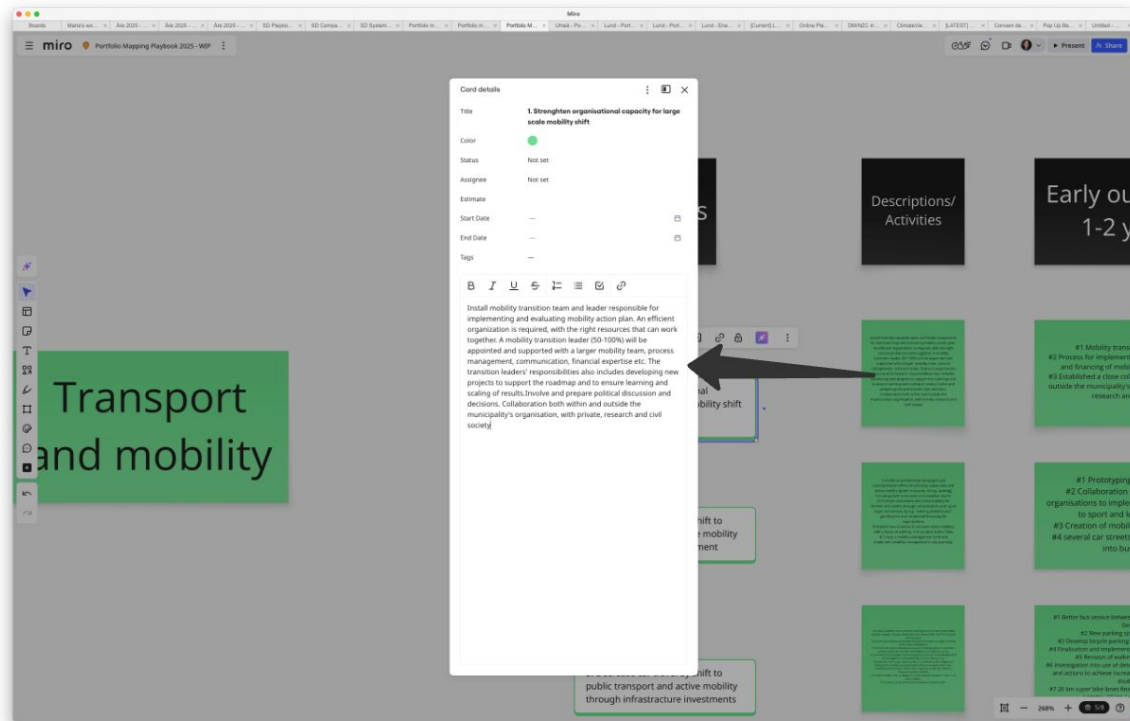
Lay the puzzle

The logic of the circular mapping is that the overarching mission is in the middle and everything outside supports the mission. The most concrete actions are at the edges.

Sort the actions and outcomes in the mapping. Select what to add, level of detail and order based on available content and purpose of mapping.

Remember that the first unpacked action plan is not a deliverable, it is just a starting point for exploration.
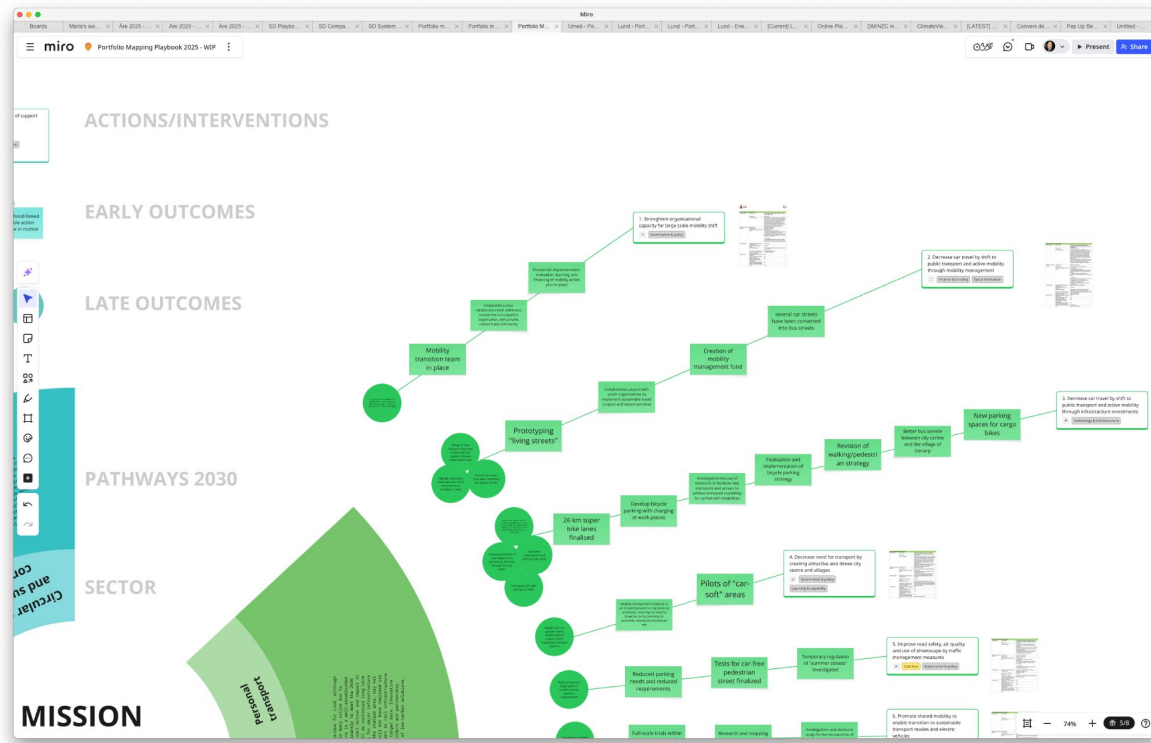
Lay the puzzle

An unpacked Action Plan may look something like this. Visit [this Miro](#) to view examples.
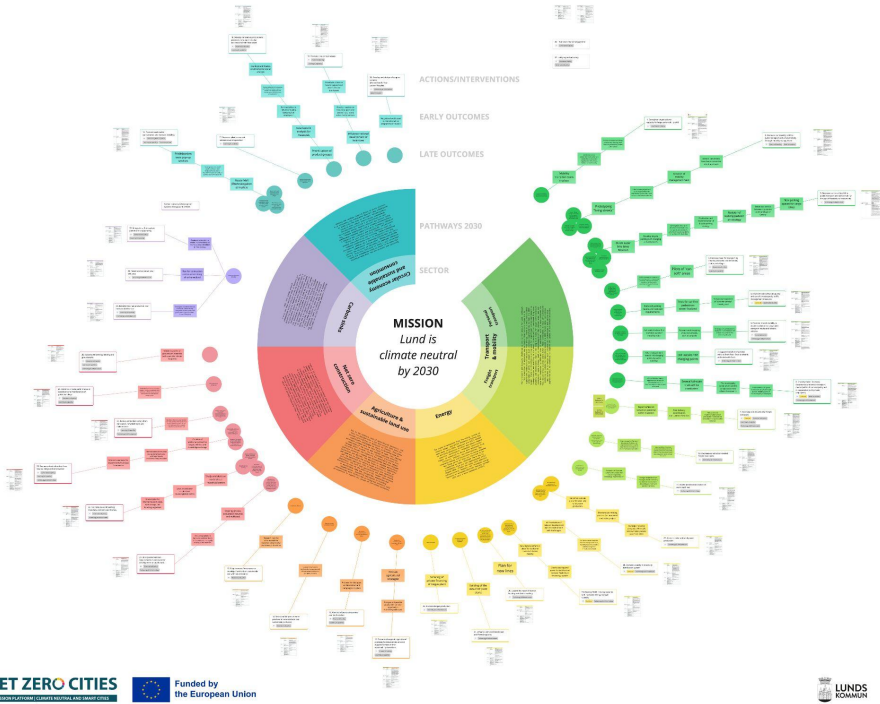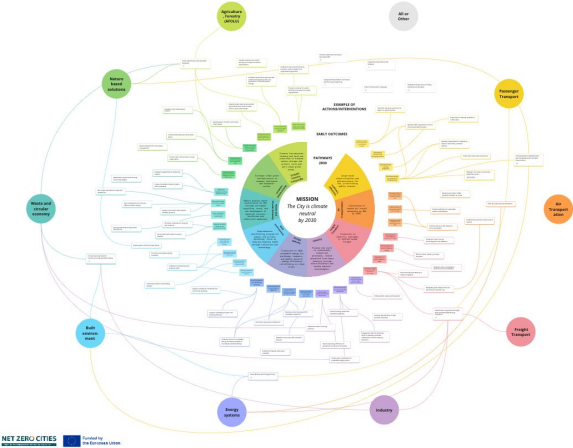
3. Co-Design the Portfolio

Plan a workshop series to build the Actions, Actors and Assets of the Climate Portfolio. Include/invite colleagues and stakeholders with different perspectives and expertise. Map the relationships between actions, actors, and assets. Identify dependencies, synergies, and shared resources.

Output: A co-created portfolio map and shared ownership.
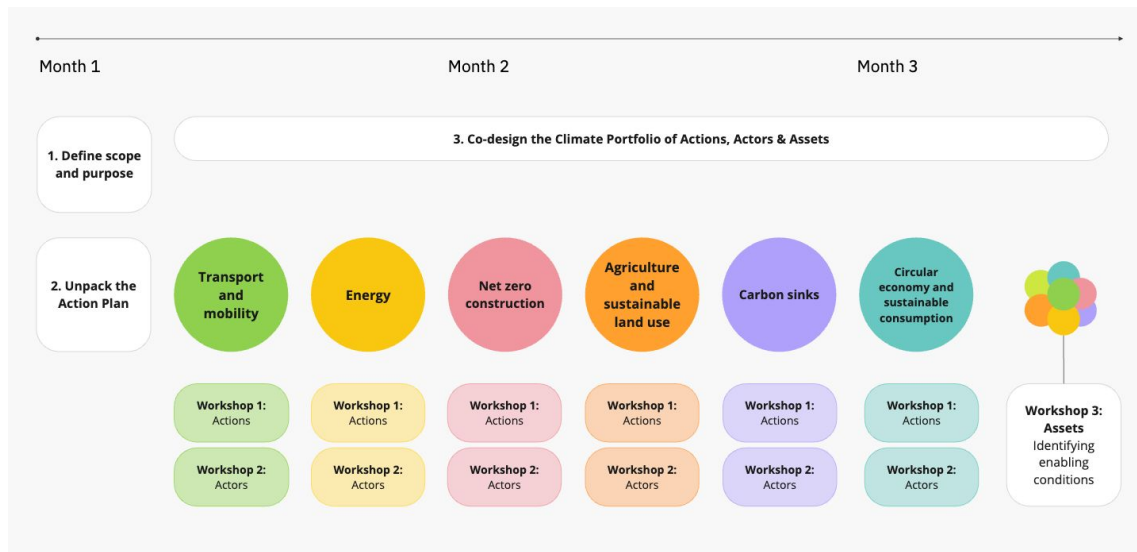
The Four Steps to Get Started
Co-Design the Portfolio - Workshop series

Part 1: **Actions**
(interventions, activities)

Surface existing and identify future actions. Focus on one or two domains at a time with relevant participants.

What actions and activities are we doing/planning to achieve our goals?
What interdependencies exist?
Who is the main responsible?
What's the status of the action?
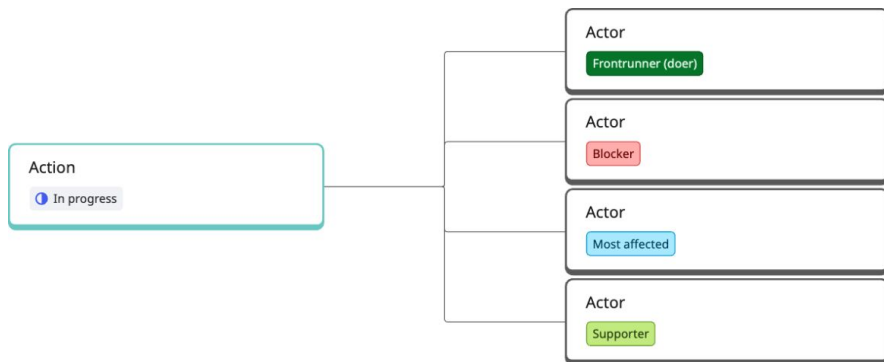
Part 2: **Actors**
(stakeholders)

Starting from each action and map actors related to implementation of the action. Involve participants from different pathways.

What actors enable the actions?
What is the status of each actor's engagement?
Who's most affected?

Part 3: **Assets**
(enabling conditions)

Zoom out and analyse patterns, common needs, barriers and drivers among the actors and between the actions. This often creates a need for new actions, or requires additional actors. Based on the findings, plan the support and targeted workshops needed to design the enabling conditions.

What enabling conditions are required to succeed?

Action
In progress

Actor
Frontrunner (doer)

Actor
Blocker

Actor
Most affected

Actor
Supporter

Financial Incentives

Trust Among Stakeholders

Shared Data Platform

Innovation Capabilities

Public Space

Organisational Capacity

Governance Frameworks

Citizens Engagement
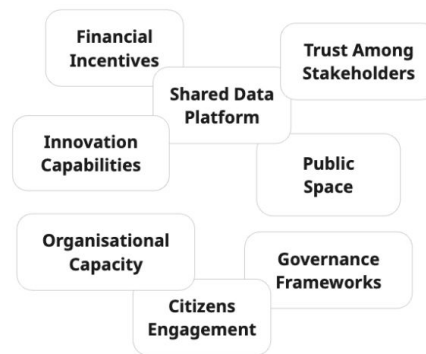
4. Explore and Iterate

Use the map to analyse patterns, or use it as a dialogue tool. Adapt it for different target groups (politicians, private sector, communities). Revisit the portfolio regularly to adjust for progress, barriers, or new opportunities.

Example of topics to explore:
- **Progress:** Create an overview of which actions are To do, In progress, Done**.**
- **Levers of change:** Ensure that your portfolio includes all system dimensions for change.
- **Responsibilities:** Distribute responsibility and co-ownership for implementation.
- **Funding:** What actions/activities are already funded and/or decided, and which are not?
- **Type of action:** What actions have direct or indirect impact on emission, and which ones are enabling other actions?
- **Co-Benefits:** Highlight benefits to engage non-climate-driven stakeholders.
- **Innovation Horizons:** Balance efforts with short-term gains and long-term transformations.
- **Actors / Alliances:** Sort the portfolio by key actors or constellations of actors.

Output: A living, evolving portfolio.

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The Four Steps to Get Started
Explore and Iterate

Examples of different perspectives that can be explored:

Levers of change
- Technology and infrastructure
- Governance and policy
- Social innovation
- Finance and funding
- Democracy/Participation
- Learning and capabilities

Co-benefits
- Air Quality
- Health & well-being
- Reduction of noise
- Job creation
- Property value
- Resource efficiency

Type of action, funding, progress, ownership
- Direct, Indirect, Enabling
- Fully funded, Partly funded, Not funded
- To Do, In Progress, Done
- Responsible actor/department

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1. Strenghten organisational capacity for large scale mobility shift

☰ Governance & policy

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13. Work to influence consumers and food retailers

☰ Finance & funding

Learning & capability

Green travel plan with all stakeholders in the University area

Health & Well-being

Marketplace for the reuse of building materials in operation

Job creation | Local economy

Resource efficiency | ✓ Done

Pre-study/innovation project transition to regenerative agriculture
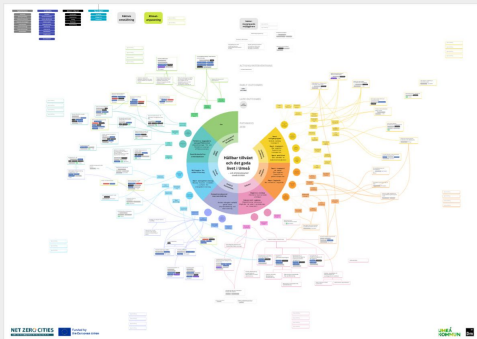
Direct | Not funded

Samhällsbyggnadsförvaltn... | ◌ To do

Direct buses from and to villages morning and evening.

☰ Indirect | Partly funded

Skånetrafiken | ◐ In progress

Case studies

Umeå, Sweden

Lund, Sweden
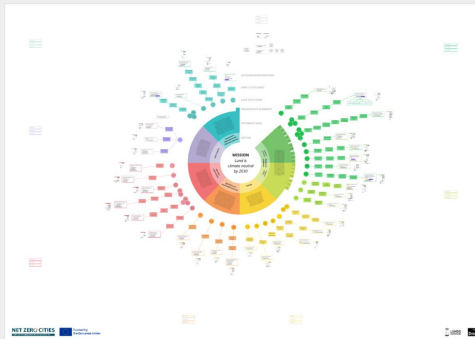
Warsaw, Poland
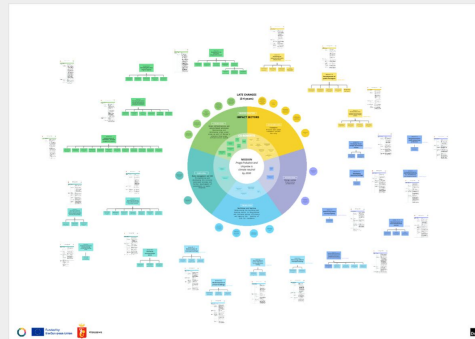
Case studies

Portfolio mapping has been tested in several European cities with different needs.

In **Lund**, the municipality sought a way to unpack and visualise its Climate Action Plan, helping teams and stakeholders see interdependencies, gaps, and leverage points, while also supporting funding allocation, political communication, and private sector engagement. Read more in [this case study about Lund](#).

In **Umeå**, the Transition Team needed to connect pathways to systemic portfolios and build shared understanding across departments; portfolio mapping helped structure early portfolio work, clarify priorities, and create a stronger dialogue between municipal teams, researchers, and local businesses.

In **Warsaw**, where more than 40 internal stakeholders were invited to climate planning workshops, the city required a tool to move from high-level investment ideas to concrete actions; portfolio mapping made the plan accessible, enabled collaborative prioritisation, and fostered shared ownership across departments and actors.

Portfolio Mapping workshop in Lund.

Further Resources

Tips for Success:

- Keep the process participatory – the value is in co-creation.
- Don't treat the portfolio as a static report – it's a living tool.
- Use visuals wherever possible – humans process images faster than text.
- Revisit and update – momentum comes from iteration, not perfection.

Resources

- [Portfolio Making – Embracing Distributed Governance](#) (Simon Höher et al.).
- NetZeroCities [Climate Transition Map](#)
- Mapping examples to be found in this [Miro board](#).

Created by:

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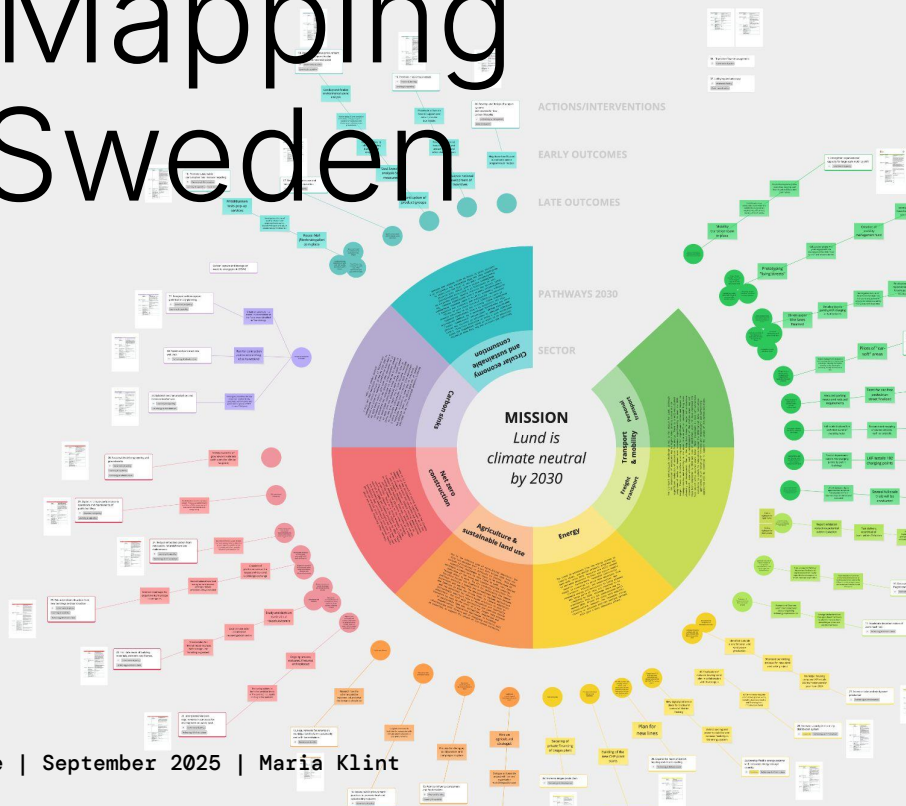
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Case: Lund

Portfolio Mapping in Lund, Sweden

Case: Lund

The municipality of Lund in Sweden aims to become climate neutral by 2030. Lund received the EU's Mission Label in May 2025 – a label that confirms that Lund's climate work is on the right track to reach the climate goals. So far emissions have dropped in energy, but transport, construction, and agriculture remain major challenges.

During 2025 Lund has used Portfolio Mapping as a key tool to visualise actions, activities, and actors in order to show how different parts of the transition interact. The goal was to make the complexity of climate work visible, identify dependencies, synergies, and potential gaps, and to create a living document that can be updated and adapted as the work progresses.

In the short term, the goal was to engage more internal and external actors in the climate work, create a shared understanding, and identify and develop actions within the six prioritized transition areas. In the long term, the aim is to facilitate coordination between actors, identify synergies and gaps in the work, and promote continuous learning, ensuring that Lund's strategy remains inclusive and forward-looking in order to achieve climate neutrality by 2030.

"We are in a process that helps us mobilize more people, across borders and silos. It creates momentum and allows us to start to see the whole picture – the whole puzzle."

Juliet Leonette
Process manager
Climate Neutral Lund 2030

Case: Lund

1. Define scope and purpose

Initial needs and How Lund is using Portfolio mapping:

- An **onboarding** tool for Climate City Contract (CCC) and the climate agenda.
- To **build capacity** and a shared understanding internally.
- Create a basis for **funding allocation** and political communication.
- An **engagement** tool for the private sector and civic partners.
- Bridge the Action Plan with the ClimateView platform, using the open source framework Transition Elements Framework.

Climate City Contract
Action Plan
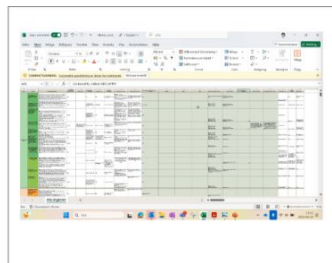
Action plan data
spreadsheet
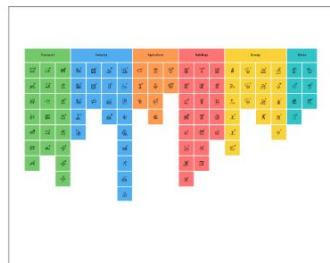
Transition element
framework

ClimateView platform
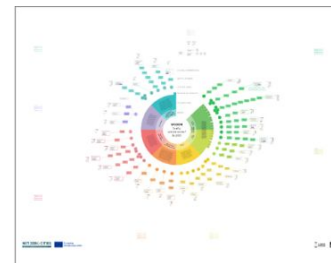
Unpacked Action Plan
in Miro

Case: Lund
2. Unpack the Action Plan
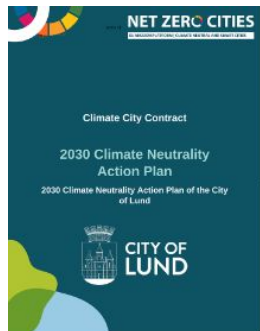
Unpacking the
Climate City Contract
Action Plan
- 37 Actions
- 6 Domains

Portfolio mapping
Place all the pieces on the
table and start sorting.

Case: Lund

3. Co-design the Climate Portfolio

During 2025 Lund planned and ran a workshop series, including around 50 individuals with different perspectives and expertise within the municipality to build out the portfolio map, create radical scenarios and build internal capacity.

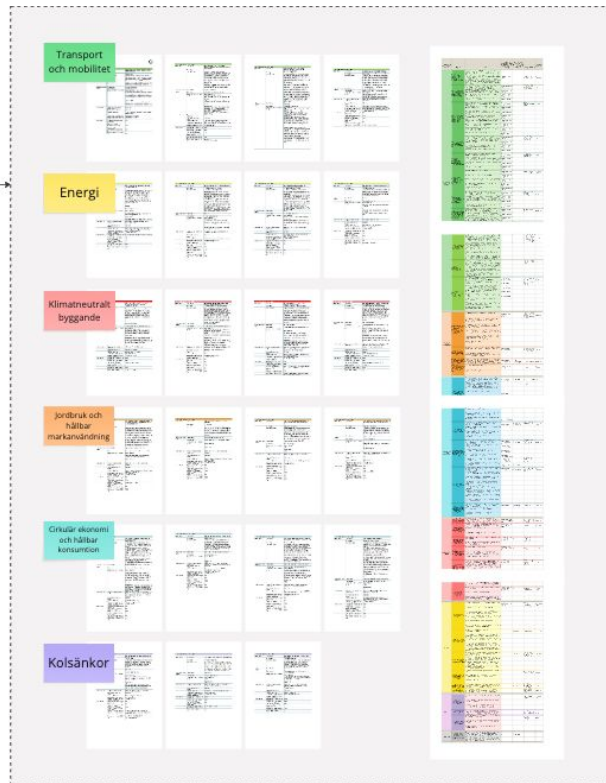| Part 1: **Actions** (interventions, activities)	Part 2: **Actors** (stakeholders)	Part X: **Radical scenario**	Part 3: **Assets** (enabling conditions)
Surface existing and identify future actions. Focus on one or two domains at a time with relevant participants.	Starting from each action and map all actors related to implementation of the action. Involve participants from different pathways.	A workshop involving everyone included in the mapping to explore and co-create more radical future scenarios and identify new actions and actors.	Zoom out and analyse patterns, common needs, barriers and drivers among the actors and between the actions.
What actions and activities are we doing/planning to achieve our goals? *What interdependencies exist?* *Who is the main responsible?* *What's the status of the action?*	*What actors enable the actions?What is the status of each actor's engagement?* *Who's most affected?*	*How could we become climate neutral if we dare to think completely differently?* *Which radical scenarios can open paths we do not yet see?* *Which actors need to join to make it possible?*	*What enabling conditions are required to succeed?*

LUNDS KOMMUN Dm 31

Case: Lund

3. Co-design the Climate Portfolio

Merging multiple lists of actions within Transport and mobility in one overview, and connecting them to early/late outcomes.

Combining the process of updating the Energy Plan for 2026-2029 with the portfolio mapping of the energy domain.

Building the map step by step to reveal the strong connections between actions in different domains.

Not yet conducted.

May

August

September

October

November

Transport and mobility

Energy

Carbon sinks

Agriculture and sustainable land use

Net zero construction

Circular economy and sustainable consumption

Workshop 1: Actions

Update of the Energy Plan

Workshop 1: Introduction Identify measures

Workshop 2: Specify and prioritize measures

Workshop 3: Actors, responsibilities and timeline

Workshop 1: Actions

Workshop 2: Actors

Workshop 1: Actions

Workshop 2: Actors

Workshop 1: Actions

Workshop 2: Actors

Workshop: Radical scenario

Workshops: Assets (enabling conditions)

Workshop 2: Actors

Case: Lund
     3. Co-design the Climate Portfolio

This was the framing and invitation to the workshop series in Lund.

Purpose

The purpose of the workshop series is to onboard more people into the work on Lund's climate portfolio, create an understanding of the whole, identify, further develop and update measures and activities within the prioritized transition areas.

Goals

The workshop series will result in a visual map of Actions, Activities, Actors and Assets within the transition areas.

The process should be inclusive so that all participating colleagues feel ownership of the mapping.

The mapping should create conditions to:
Coordinate efforts: Bring together actors and identify synergies between different efforts.

Identify gaps: Analyze the portfolio to identify areas that lack responsibility and propose next steps.

Communication: Disseminate knowledge about the portfolio both internally within the municipality and externally to citizens and stakeholder.

Invitation

"As part of the climate contract with the EU (Climate City Contract), the city has compiled its existing goals, strategies and action plans into a climate action plan with XX Actions across X prioritised areas. We now invite you to a workshop series where together we will further develop, update and create a shared map of activities, projects and actors in the transition work."

Lund portfolio map (September 2025)
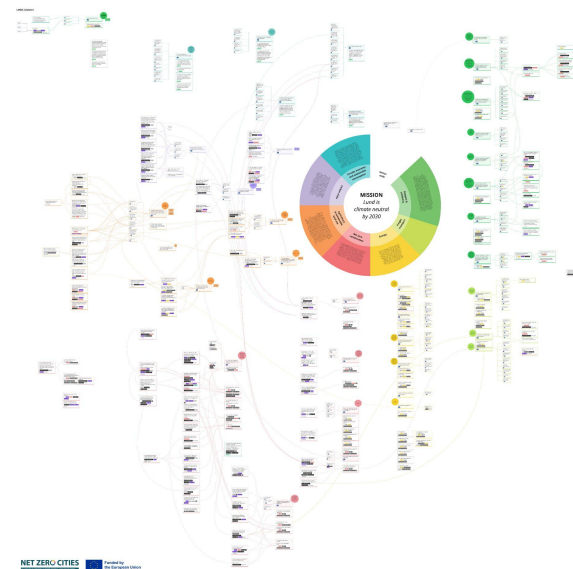
[Link to Miro](#)

Case: Lund
4. Explore and iterate the Portfolio

Throughout the process Lund focused on the following categories to enable exploration and iteration of the portfolio:

- **Progress:** Create an overview of which actions are To do, In progress, Done.
- **Type of action:** What actions have direct or indirect impact on emission, and which ones are enabling other actions?
- **Funding:** What actions/activities are already funded and/or decided, and which are not?
- **Responsible:** Distribute responsibility and co-ownership for implementation.
- **Actors / Alliances:** Sort the portfolio by key actors or constellations of actors.

4.2 Municipal collaboration with neighboring municipalities for a long-term sustainable energy system

≡ Enabling   Municipal office   ◌ To do

Pre-study/innovation project transition to regenerative agriculture

Direct   Not funded

Samhällsbyggnadsförvaltn...   ◌ To do

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Direct buses from and to villages morning and evening.

≡   Indirect   Partly funded

Skånetrafiken   ◑ In progress

Case: Lund
    4. Explore and iterate the Portfolio

As part of the update of Lund's Energy Plan we specifically explored the **interconnections** and **dependencies** between all identified actions. We also mapped the actions towards the goals to identify gaps. This was done in co-creation in the workshop using a visualisation like this.
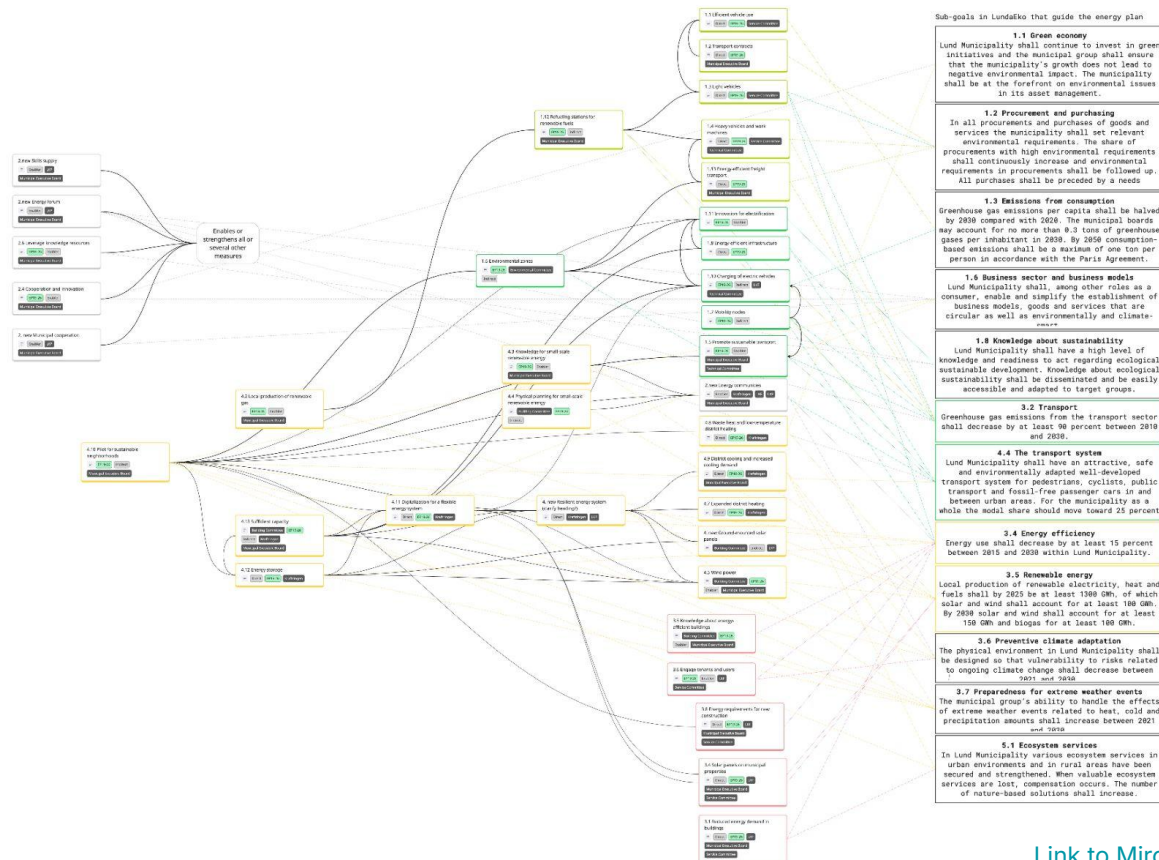
Case: Lund

When this guide was published in September 2025, Lund is in the middle of the process and we will update about results, impact and learnings as we can.

Resources:
https://miro.com/app/board/uXjVJDTzUCI=/?share_link_id=316417084609

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"The process is like a supernova – it releases energy, attracts more people and allows us to see the whole picture."